SOCIAL FACTORS INFLUENCING DISEASE INCIDENCE

Berkman (1) states, "... pathways linking socioenvironmental conditions and social support to physical health outcomes need to be more thoughtfully explored." This statement is particularly applicable to Native Americans on reservations where attitudes of the population toward the health care systems on the reservation have a profound impact on the ability of the physicians and other health care providers to deliver a quality of medical care commensurate with their degree of expertise.

More specifically, as a pediatrician who spent two years on a reservation, I was impressed by the widely known, high incidence of acute and recurrent otitis media among the Native American children (2) and the too often associated hearing deficits with subsequent learning disabilities (3). Too often noted was a lack of parental compliance with prescribed medical regimens and routine follow-up care recommendations for acute and recurrent otitis media. I believe a cause and effect relation exists between the degree of parental noncompliance with prescribed medical regimens/routine follow-up care recommendations and an increased incidence of recurrent otitis media which, in turn, is known to be related to subsequent learning disabilities secondary to significant, recurrent, chronic hearing deficits. If better parental compliance could be achieved, the deleterious sequelae of recurrent otitis media, it is hoped, could be significantly reduced. I feel that the attitudes of any population toward a given health care system play a significant role in determining the ability of highly competent health care providers within a health care system to achieve a noteworthy frequency of parental and patient compliance. Positive attitudes of a population toward a given health care system would probably result in increased patient and parental compliance which, in turn, would help decrease the frequency and severity of treatable pathologies.

In conclusion, the more one understands how social factors impact on disease incidence, the greater the likelihood that health care providers will be able to have a more positive impact on a given population and, thus, generate a higher degree of patient/parental compliance resulting in reduced morbidity and mortality.

References

1. Berkman LF. Social networks, support, and health: taking the next step forward. Am J Epidemiol 1986;123:559–62.
2. Bluestone CD. Recent advances in the pathogenesis, diagnosis and management of otitis media. Pediatr Clin North Am 1981;28:727–55.
3. Paradise JL. Otitis media during early life: how hazardous to development? Pediatrics 1981;68:869–73.

Albert F. DiNicola
Division of Pediatric Endocrinology
Stanford University Medical Center
Stanford, CA 94305

Editor's note: In accordance with Journal policy, Dr. Berkman was asked if she wished to respond to Dr. DiNicola's letter, but she chose not to do so.

NOTICE
This material may be protected by copyright law (Title 17 U.S. Code).

Am. J. Epidemiol. 125 p. 541, 1987

RE: "EFFECTS OF PASSIVE SMOKING ON ISCHEMIC HEART DISEASE MORTALITY OF NONSMOKERS: A PROSPECTIVE STUDY"

Garland et al. (1) reported initially that as a result of a near 10-year prospective study, with data analyzed by highly sophisticated statistical methods allowing adjustment for various factors, it was found that wives of current or former smokers had an increased relative risk for death from ischemic heart disease of 14.9, highly suggestive if not nominally significant ($p \leq 0.10$). A subsequent erratum (2) states that the relative risk of 14.9 was erroneous and should have been 2.7, p remaining at ≤ 0.10. Conclusions in the report were stated not to be affected, other values in the tables and elsewhere to be correct.

However it was the 14.9 relative risk which was at the heart of the initial report. No other relative risks were cited in the report. The 14.9 relative risk was repeated several times in the report and motivated the suggestion that legislation might be needed. A nonsignificant relative risk of only 2.7 hardly conveys the authority for such action. Furthermore, I note that the authors give some justification for using one-sided p levels on the basis that they were testing previous findings. Yet in their final paragraph they state that to their knowledge, their report was the first to relate increased mortality from ischemic heart disease to involuntary smoking. In that case, p should be ≤ 0.20, not significant at all, and even less supportive of the need for action.

References

1. Garland C, Barrett-Connor E, Suarez L, et al. Effects of passive smoking on ischemic heart disease mortality of nonsmokers: a prospective study. Am J Epidemiol 1985;121:645–50.
2. Erratum. Am J Epidemiol 1985;122:1112.

Nathan Mantel
Mathematics, Statistics and Computer Science
The American University
Bethesda, MD 20814

2023511729

Source: https://www.industrydocuments.ucsf.edu/docs/qjpx0000